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**BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES**

Application Number: 10/623,588
Filing Date: July 22, 2003
Appellant(s): SCHLATTER, GARY

John L. Welsh
For Appellant

EXAMINER'S ANSWER

This is in response to the appeal brief filed February 6, 2009 appealing from the Office action mailed September 8, 2008.

(1) Real Party in Interest

A statement identifying by name the real party in interest is contained in the brief.

(2) Related Appeals and Interferences

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The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

(3) Status of Claims

The statement of the status of claims contained in the brief is correct.

(4) Status of Amendments After Final

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

(5) Summary of Claimed Subject Matter

The summary of claimed subject matter contained in the brief is correct.

(6) Grounds of Rejection to be Reviewed on Appeal

The appellant's statement of the grounds of rejection to be reviewed on appeal is correct.

(7) Claims Appendix

The copy of the appealed claims contained in the Appendix to the brief is correct.

(8) Evidence Relied Upon

2004/0250386	GOLDBERG	12-2004
5,996,191	CHRISTLER	12-1999
3,748,703	MAILLOCHEAU	07-1973

(9) Grounds of Rejection

The following ground(s) of rejection are applicable to the appealed claims:

2. Claims 1- 3, 5-6, 8-11, 13, and 15-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Goldberg US 2004/0250386 in view of Christler US 5,996,191.

Examiner notes Goldberg '386 was filed May 30, 2003, and thus qualifies as prior art under 35 U.S.C. 102(e) as the instant priority date is July 22, 2003.

Regarding claims 1 and 16, Goldberg '386, in the embodiment shown in figure 1A, teaches a container, taught in paragraph [0003] to be used for storing shampoo, soap, detergent, and other substances such as ointments, lotions and toothpaste, all of which are dispensed, thus teaching a

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dispensing container (10); an open end (14); a closed end (16); a closure cap (20), and an integrally-formed carabiner first and second arms having upwardly extending members (32, and an unlabeled section just above 20), and first (34) and second (38) arcuate members. In paragraph [0004], the reference teaches the purpose is to attach the container to other articles, such as luggage, belt loops, towel racks, wall hooks, utility belts, backpacks, and the like.

The reference fails to teach the arms overlapping along a substantial portion of their arcs.

Christler '191 teaches an overlap along resilient arms in a key ring, disclosing in column 3, lines 59-66, through column 4, lines 1-6, that it is known to adjust the relative length of the overlap. The abstract teaches, "The ends remain, however, freely displaceable from one another along the axial and circumferential directions and depend on substantially elastic restoring forces in the member to maintain the closed configuration." As such, the ends of the ring function exactly as those of the carabiner member on the cap of Goldberg '386, in that they part to allow attachment to another object, and then return to a "closed" position (in which the free ends are still slightly spaced). One of ordinary skill would thus recognize the equivalence of the function of the free arms in separating to allow attachment to an object, and then returning to a "closed" position under the natural internal bias caused by the elasticity of plastic, and, would also recognize a reasonable expectation of success when applying a benefit of one to the other. One of ordinary skill would thus find it obvious to modify one in view of the other for a benefit taught therein. Examiner also notes Christler '191, teaching in column 2, lines 60-62 that "The connection may be either for connecting the article to the ring, or the ring to the article," thus making it even more obvious to one of ordinary skill that the device has wide applicability. The reference details in columns 3 and 4 that the benefit of the structure is to allow either axial or radial opening, in order easily allow attachment, without also opening along the other axis, in order to stabilize the device. In column 3, lines 59-66, and continuing over to column 4, lines 1-6, the reference teaches it is known to modify the length of the overlap – either increasing or decreasing as specifically discussed in column 4 – relative to the width, in order to configure the opening relative to the internal material bias. In fact, line 1 of column 4 specifically states it would be obvious to one of ordinary skill. Finally, the length of the overlap, when compared to the overlap shown in figure 1A of Goldberg would make it much harder for radial detachment

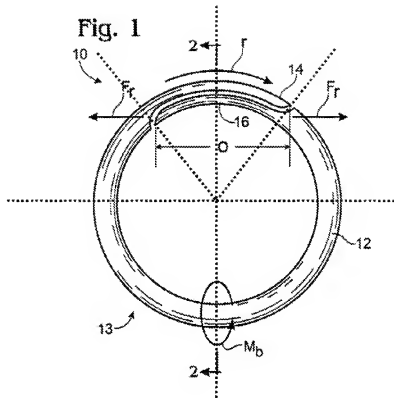
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of the arms relative to each other (because the upper arm simply is in the way of the lower arm), thus making the connection less likely to come apart under radial stresses.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the length of the overlap of the arms of Goldberg '386, making it such that the arms overlap along a substantial portion of their arc lengths, as taught by Christler '191, motivated by the benefit of providing stability such that the arms will only separate in either a radial direction or an axial direction but not both, and, by the benefit of preventing radial detachment. **Examiner emphasizes that the obviousness is not to place the key ring of Christler '191 onto the cover of Goldberg '386, but instead to apply a teaching from Christler '191 that it is known to modify the length of overlap of resilient arms in order to overcome material bias to obtain a desired opening force between the elements.**

Regarding claim 8, the combined references teach all limitations substantially as claimed, but fail to teach the overlap along the respective arcs of the first and second arms being at least 60 degrees. Examiner notes, however, in the diagram provided below taken from Christler '191, figure 1, superposed lines have been drawn to estimate the center of the ring, and then show the arc length of the overlap relative to the center. It is clear that the arc overlap is slightly less than 90 degrees, and more specifically is likely greater than 60 degrees.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the length of the overlap of the first and second arms through at least a 60 degree arc, or to any other suitable arc length, motivated by the benefit of providing increased resistance to radial forcing which would open the arms and break the connection between the container carabiner, and the associated article with which it is attached. A change in size is generally recognized as being within the level of ordinary skill in the art. *In re Rose*, 105 USPQ 237 (CCPA 1955). It would have been obvious to one having ordinary skill in the art at the time the invention was made to *, since it has been held that discovering an optimum value of a result effective variable involves only routine skill in the art. *In re Boesch*, 617 F.2d 272, 205 USPQ 215 (CCPA 1980).



Regarding claims 2, 9, and 17, it is clear that in both references, the second arm (38 in Goldberg '386; 16 in Christler '191) has a smaller radius of curvature, as it is located radially inwardly of the first arm.

Regarding claims 3, 5, 10, 13, and 18, the first arm (34 in Goldberg '386; 14 in Christler '191), by being disposed radially outwardly from the second arm, inherently comprises a longer arc length.

Regarding claim 6, 11, the combination of Goldberg '386 in view of Christler '191 as applied above, teaches all limitations substantially as claimed, but it is not clear how far apart the arms are located from each other in either reference. However, each clearly teaches separation between the two respective arms. It would have been obvious to size the container such that the resultant gap was equal to 2 mm or less, or any other suitable size, motivated by the benefit of providing a container of a desired volume. A change in size is generally recognized as being within the level of ordinary skill in the art. *In re Rose*, 105 USPQ 237 (CCPA 1955).

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Regarding claim 15, the ends of the first and second arms (34, 38) are shown to be tapered in Figure 1A of Goldberg '386.

3. Claims 4, 7, 12, and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Goldberg US 2004/0250386 in view of Christler US 5,996,191 as applied to claims 1, 3, 8 and 9 above, and further in view of Maillocheau US 3,748,703.

Goldberg '386, as applied above, teaches all limitations substantially as claimed but fails to teach the first upwardly extending connecting member being longer than the second upwardly extending connecting member. However, Examiner notes this is due to the fact that the first arm arcuate portion (34) is located radially outwardly of the second, and the second arm's arcuate portion (38) is the one which is apparently pressed inwardly. Thus, the second arm's upwardly extending member (30) is longer.

Maillocheau '703 teaches a plastic clasp/clip hook, wherein what would comprise the first arm arcuate portion (4) is radially outwardly of the second arm (5) and thus the second arm is the portion which is pressed in, in order to open the gate. As such, the first arm's upwardly extending member (3) is longer than the second arm's upwardly extending portion (6).

Examiner notes there is a clear advantage to the structure shown by Maillocheau '703, due to leverage: By having the shorter arm be the arm which pivots inwardly, a greater force is required to open the gate, compared to an equal torque applied at the arcuate end of the longer arm, in the configuration shown in Goldberg '386. This is known from the equation for a "moment arm," given by the equation $\tau = r \times F$. Because the inwardly pivoting second arm (30, 38) of Goldberg '386 is much longer than the first arm (34), a lesser force is required to open it. While this might be an advantage in one sense, it would be desirable in another sense to increase the required opening force, in order to prevent inadvertent opening of the gate. This can be done by reversing the configuration of the gates, such that the shorter arm is the arm which is inwardly pivoted, and thus the required opening force is greater.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to reverse the orientation of the first and second arms of Goldberg '386, such that the first arm would thus become (30, 38), would be disposed radially outwardly of the second arm (34), the second

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arm would thus pivot inwardly, and the first arm's upwardly extending portion (30) would thus be longer than that of the second arm (unlabeled; located immediately above 20), motivated by the benefit of increasing the force required to open the gate, and thus preventing undesired opening of the gate. It has been held that a mere reversal of the essential working parts of a device involves only routine skill in the art. *In re Einstein*, 8 USPQ 167.

Examiner emphasizes that this modification is not to replace the arms of Goldberg '386 with those of Maillocheau '703, but instead is to modify Goldberg '386 with a teaching of a concept shown in Maillocheau '703.

(10) Response to Argument

I. CLAIMS 1-3, 5, 6, 8-11, 13 AND 15-20 ARE UNPATENTABLE OVER GOLDBERG IN VIEW OF CHRISTLER

Appellant argues that a *prima facie* case of obviousness has not been made. Examiner asserts that motivation to combine could come from sources outside of the prior art, as allowed by MPEP 2144, which states: "The rationale to modify or combine the prior art does not have to be expressly stated in the prior art; the rationale may be expressly or impliedly contained in the prior art or it may be reasoned from knowledge generally available to one of ordinary skill in the art, established scientific principles, or legal precedent established by prior case law."

Regarding Appellant's assertion that the teaching to overcome material bias is not taught within the reference, Examiner asserts that such is found in Christler '191, column 3, lines 55-66, wherein the reference teaches "...the connecting ring may be provided with an additional bias for enhancing or overcoming this preference. This may be introduced by adjusting the relative amounts of overlap of the ends 14 and 16 along each direction, and is preferably introduced by adjusting the amount of the circumferential overlap "a."" The reference is instructing one of ordinary skill that in a plastic loop with overlapping ends, to be used for securing items together, that it is known, and preferred, to adjust the overlap of these ends in order to enhance or overcome (presumably depending on whether such overlap is lengthened or shortened) biasing in the arms. Thus, Examiner asserts that one of ordinary skill in the art would be motivated by Christler '191 to modify the length of the overlap of the arms of Goldberg '386,

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in order to obtain a desired bias, either enhanced, or overcoming the internal material bias, in order to configure the amount of force required to pry apart the overlapping arms.

Examiner asserts that the fastener (30, 32, 34, 38) of Goldberg '386 is virtually identical to the connection ring of Christler '191, as both are used to secure items together, and, both have free arms which overlap, and which are pried apart in order to open the loop. Thus, there is a reasonable expectation of success that the benefit to be gained from the teaching of Christler '191, of enhancing or overcoming an internal material biasing force by varying the length of the overlap of the free ends of the ring, would also be gained by applying said teaching to the arms of Goldberg '386.

Examiner furthermore asserts that Appellant's invention only differs from Goldberg '386 in the length of the overlap. However, this is not an unexpected result. Christler '191 teaches it is known to vary the length of such overlap in order to enhance, or counteract the internal material bias, and Appellant's disclosure has not provided evidence that such overlap affords an unexpected result.

Appellant furthermore argues that the modification of Christler '386 would render Goldberg '386 inoperative. This is clearly not true, as the radially underlapping arm (38) can still be pressed inwardly, as its path is unobstructed, even after the overlap. Appellant's argument that a carabiner operates without pivoting an arm with a finger fails to consider that the ring of Christler '191 could also be opened by pushing it against an object. Even a carabiner could be used by opening the gate with one's fingers. However, this argument is frivolous at best, because one of ordinary skill would only look to the teaching of Christler '191, to apply a benefit taught therein to the device of Goldberg '386, and not to use the device itself on Goldberg '386, such as replacing the carabiner provided therein.

Appellant's arguments that there is no overlap in Goldberg '386 is incorrect. Examiner notes Goldberg '386, figure 1A, whereby arm (34) clearly overlaps arm (38). This is how carabineers work – the inner arm is prevented from moving outwardly, because of the overlap, thus allowing carabiner to secure an item to another item.

Regarding Appellant's arguments drawn to the overlap, Examiner notes the claims call for an overlap of "at least a 60 degree arc." Examiner notes the figure provided in the Final Action (also included herein, above), under section 2, shows Christler, figure 1, annotated to provide radial lines in

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order to define the arc segment of the overlap. Examiner notes that the angle between these two radial lines, measured at their intersection at the center of the ring, is slightly less than 90-degrees. However, it is clearly not more than 30 degrees less. Thus, the overlap shown by Christler is at the very least approximately more than 60 degrees. Examiner makes the conservative estimate that the arc shown in Christler is about 75-85 degrees. Regardless, it is improper to make literal measurements from patent drawings, unless such are explicitly stated to be drawn to scale. The point to remember is that Christler clearly teaches this overlap is never going to be a fixed value, but instead, can be increased, or decreased, in order to combat, or enhance, internal material biasing forces. Absent a teaching of an unexpected result, varying the size of a known structure has been held to be within ordinary skill. *In re Rose*, 105 USPQ 237 (CCPA 1955). Furthermore, Examiner notes that it has been held that discovering an optimum value of a result-effective variable involves only routine skill in the art. *In re Boesch*, 617 F.2d 272, 205 USPQ 215 (CCPA 1980). Thus, Examiner asserts that Christler not only teaches an overlap of greater than 60 degrees, but furthermore that Christler instructs one of ordinary skill to experiment with lengthening or shortening the overlap in order to obtain desired mechanical performance from the elements of the ring/fastener.

Regarding the limitation that the first and second arm extend along at least an arc of 120 degrees, Examiner notes the arms of Goldberg '386, figure 1A, appear to form a semi-circle, and thus have an arcuate extent of about 180 degrees.

Regarding Appellant's arguments drawn to *KSR v. Teleflex*, Examiner asserts that the first condition is met because the known technique (varying the length of the overlap, as taught by Christler '191) is applied to a known device ready for improvement (the carabiner of Goldberg '386, which also comprises overlapping arms) for predictable results (enhancing or overcoming the internal material biasing forces); the second condition is met because one of ordinary skill in the art would find the teaching of Christler '191 applicable to Goldberg '386, as both inventions are drawn to resilient loops with overlapping arms, for securing items together; and the third condition is met because of the explicit teaching of the benefit of modifying the overlap in Christler '191, column'3, lines 55-66.

Lastly, regarding the radius of curvature, Examiner notes that by modifying the length of the overlap in the arms of Goldberg '386, to obtain a configuration such as that shown by Christler '191, the overlap itself results in arms of different radii of curvature, as one has a longer radius than the other. This is the exact configuration shown in Appellant's own figures -- one arm has a longer radius than the other. Thus, any argument that the arms of Christler '191 have the same radius of curvature would also apply to Appellant's own invention. Appellant has, in fact, given the term "radius of curvature" a different meaning. Two arcs which have a different radius of curvature would not be able to lie concentric, such as that shown by Christler or Appellant's own figure 2. Instead, they would deviate and ultimately intersect, or, arc away from each other, and there would be no way to maintain an equal distance between points on each arc, taken along the same radius. However, Appellant's own figure 2 shows the two arcs having an equal space between them, along any radius through the entire overlap, thus making them concentric, and ultimately having the same radius of curvature. Such is the same in Christer, and thus both inventions have the same radius of curvature.

II. CLAIMS 4, 7, 12 AND 14 ARE UNPATENTABLE OVER GOLDBERG IN VIEW OF CHRISTLER, AND FURTHER IN VIEW OF MAILLOCHEAU

Appellant argues that there is no motivation to combine these references a set forth including there being no benefit to make the combination. As set forth in the rejection, there is rationale to make the combination. As it was set forth above, it has not been repeated here. Examiner further notes the motivation to use Maillocheau comes from outside the reference, and is based on known physical properties of torque.

(11) Related Proceeding(s) Appendix

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

/James N Smalley/

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Examiner, Art Unit 3781

Conferees:

/Anthony D Stashick/
Supervisory Patent Examiner, Art Unit 3781

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